

INCENTIVE REIMBURSEMENT: EVALUATION OF AN EXPERIMENT

PART TWO



HOSPITAL RESEARCH AND EDUCATIONAL TRUST

REPORTS

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Incentive Reimbursement:
Evaluation of an Experiment

Part 2

Incentives for Hospital Cost Containment:
Theory, Practices, and Prospects

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FOREWORD

In October 1969, the Social Security Administration (SSA) contracted with the Hospital Services of Southern California (Blue Cross) to conduct an experiment designed to test an alternative to the currently predominant cost (plus) method of reimbursement for hospital care. The alternative, tested by the Commission for Administrative Services in Hospitals (CASH) under subcontract with Blue Cross, was based on the offer of a financial reward as an incentive for hospital managements to reduce costs through the use of labor cost-control techniques. Twenty-five hospitals* in the Southern California area served as experimental test sites during the three-year Incentive Reimbursement Experiment (IRE).

In June 1970, SSA contracted with the University of California at Los Angeles for an independent evaluation of the Incentive Reimbursement Experiment. In 1971, the principal investigator of the evaluation project became the associate director of the Hospital Research and Educational Trust, Chicago, Ill., and the contract was transferred to the Trust.

The procedures, findings, and analyses of the evaluation project have been organized into the following reports:

- *Incentive Reimbursement: Evaluation of an Experiment*, an overview and summary of the total project;
- *Incentives for Hospital Cost Containment: Theory, Practices, and Prospects*, a "state of the art" review of incentive mechanisms in concept and operation;
- *Experimental Hospital Case Studies*, an indepth analysis of the environment and the impact of the experiment on that environment in seven of the test hospitals; and
- *Working Papers*, a compendium of technical working papers, developed throughout the course of the project, in the following areas: the experiment's sampling design technique and results; the selection and analysis of control group hospitals; the evaluation data system; the process used in auditing experimental data; CASH systems and procedures; the incentive reimbursement formula; a comparative performance analysis among experimental hospitals, and a comparative performance analysis between experimental and non-experimental hospitals.

Copies of all project reports are available from the Hospital Research and Educational Trust, 840 North Lake Shore Drive, Chicago, Ill. 60611.

The evaluation project staff was assisted in its effort by many groups and individuals. While it is impossible to list all of them, the staff would like to acknowledge the support and guidance of the following: The Commission for Administrative Services in Hospitals, particularly Robert H. Edgecumbe, president, Harold E. Buck, vice-president, and the CASH field staff; Hospital

*Originally 26 hospitals were selected for the experiment. However, one institution did not participate for the full study period.

Services of Southern California; the Hospital Council of Southern California; the staffs of the experimental hospitals, especially those of the seven institutions used as case study sites; the project advisory committee, and Leon Bernstein, Dr. P.H., senior social science research analyst, Division of Health Insurance Studies, Social Security Administration.

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INTRODUCTION

In recent years hospital officials, legislators, and the public have become increasingly concerned about the rapidly rising cost of health care, particularly hospital care. As a result various actions have been taken to reduce or at least contain cost increases. One such action is the use of financial incentive programs. Although incentive programs were primarily developed in private industry, there have been an increasing number of attempts to utilize the concepts of these programs in the hospital industry. Individual hospitals have initiated wage incentive programs for their own employees; third-party payers have planned incentive programs for groups of hospitals. In reviewing the findings of those who have analyzed or participated in incentive programs, designed to encourage cost containment, one finds a remarkable consistency in their recommendations despite a wide spectrum of program design.

Financial incentive programs do offer one type of solution to hospital cost-productivity problems. It is anticipated, therefore, that there will be continued and increasing attempts to institute such programs on a wide-scale basis. Such future efforts, however, should be designed and implemented to

avoid the problems of past efforts and to capitalize on their strengths. To achieve such design and implementation it is necessary to understand: (1) the concept of incentive programs; (2) the implementation of these concepts in the hospital industry. In addition to concept and implementation, a framework of general aspects of organizational change and the hospital organization is necessary, as it appears that some of the past problems have resulted from a failure to consider the need for a framework upon which to build an incentive program.

This report has been designed to assist those planning future incentive program efforts; it contains selected information on the theory and current practice of these programs. In addition, and perhaps most relevant, the report, on the basis of past efforts, outlines basic considerations that should be an integral part of the design, implementation, and operation of any future efforts to use incentives to motivate change in hospital performance. Since this report was not designed to be an exhaustive examination of the current state of the "incentive art" in either theory or practice, a selected bibliography has been included.

INCENTIVE PROGRAMS: Concepts and Types

Financial incentive programs are instituted in the hope of reducing or at least containing costs. A particular hospital may carry out its own program on an individual or a departmental basis, or a third party may offer a financial incentive payment to a hospital as a reward for changes in performance that result in cost containment or reduction.

Before a hospital decides to begin an employee incentive program or to take part in an institutional incentive program, a number of aspects of such programs should be considered. (Some of the following considerations do not apply to institutional incentive programs when the incentive payment given to the hospital is not shared with individual employees. However, unless the bonus is shared with employees, they may not cooperate in a program they feel offers no reward to them.)

Incentive programs are feasible only in institutions with effective management, a tradition of trust between management and workers, and employees who enjoy working for the institution. Incentive programs do not compensate for a weak management and indeed may intensify the problems it has created. If employees do not trust management, they will suspect its motives in instituting an incentive (or any other) program.

The goal of an incentive program is to make the organization more effective by rewarding employees in direct relation to increases in productivity. However, in a hospital it is difficult to define and even more difficult to measure output. Some standards must be established; the output of an average worker must be measured so that employees can be rewarded for performance beyond the average.

When an attempt is made to measure performance, ways that a job can be simplified or improved usually are discovered. The effect of the measurement in improving job performance must be separated from the effects of the incentive program. Also, if a change in the case-mix of admissions is not measured, it can result in a decrease in cost which is mistakenly attributed to the incentive program.

Additional time and therefore money are required for job evaluations, wage and salary administration, time and motion studies, and new accounting procedures. Also, additional inspections may be needed to assure that output does not increase at the expense of quality. Costs may be greater than

the amount that is saved by the incentive program.

Employees may compete for incentive payments rather than cooperate with other employees and other departments to ensure greater overall efficiency. Workers may be unwilling to take risks that might jeopardize their incentive payments, they may even figure out ways to cheat the system so that they can earn more money.

Supervisors, judged by whether or not their departments earn bonuses, may feel compelled to spend more of their time supervising.

Conflicts may arise between departments because standards must differ among departments. Workers in one department may decide that workers in another department earn bonuses more easily and therefore the program is unfair.

Special problems can arise in hospitals with persons who are members of professions. They may fear that incentive programs involve lowering of professional standards. Although they are not unwilling to make money, they usually prefer to do so through increased salaries or fees, not by a payment by results method. One way to gain their support, which is essential to the success of the program, may be to propose that the money saved will be used to buy special equipment.

Many of the foregoing problems can be avoided if a carefully planned, thorough, and determined effort is made to inform all employees about the incentive program. It may even be worthwhile to explain the plan to each individual worker. A program imposed from above on unwilling workers has no chance of success. But if employees become interested, and especially if they are involved in the planning and their suggestions are invited and seriously considered, they will be more willing to work for the program's success.

In a hospital the cooperation of the medical staff is vital. A special effort must be made to inform physicians about, and convince them of the value of, a proposed incentive program.

Most studies of incentive programs have been made during the period when the programs were first instituted and enthusiasm was high. There is little information concerning what happens as the programs continue. However, it is certain that an incentive program put into effect and then left to run itself will soon die. Unless management is

willing to make a long-term commitment to an incentive program, to continue to regard it as important over a period of years, to evaluate it and make changes as situations change, it would be better not to institute such a program.

INSTITUTIONAL INCENTIVE PROGRAMS

Institutional incentive programs are found primarily in the hospital field. Under such a plan, a third-party payer reimburses the institution at a predetermined rate; a bonus is added if the desired changes in performance are effected.

Because the institutional incentive payment usually is added to the hospital's general revenue or used to purchase new equipment or to help finance new facilities or services, hospital employees receive no direct reward for their efforts. They may resist changes that would result in increased productivity and therefore the hospital's receiving an incentive payment because they see no benefits for themselves in adopting the changes. If the program is to succeed, some way must be found to persuade employees to cooperate. Serious consideration should be given to sharing incentive payments with employees and to offering non-monetary incentives as well.

EMPLOYEE INCENTIVE PROGRAMS

The major incentive system used in industry and now being applied to hospitals is the payment of a bonus to an employee because of an increase in his own productivity or the productivity of a team or a large group to which he belongs. Basically, the employee is given a financial reward for working more efficiently, more intelligently, and more cooperatively.*

However, all incentive systems that rely only on monetary rewards can result in a sacrifice of quality for higher production or an artificial increase in demand for services that are not required for patient care but on which it is easy to earn an incentive award.

Individual Incentive Programs

In an individual incentive program the employee is given a payment for the work he does beyond a

standard level. At once such a program in a hospital runs into the difficulty of measuring output. The program usually is limited to departments, such as laundry, housekeeping, and dietary, where work units are easily identified and are measurable.

Although the individual incentive program is easily understood and ties incentive payments closely to productivity, it has many disadvantages. The costs of determining incentive payments and of frequently changing standards are high. The individual may place his goal of obtaining a bonus above the goal of increasing the department's effectiveness; also each employee may seek to do the easy jobs, leaving the more difficult ones for others.

Team Incentive Programs

An employee covered by a team incentive program earns bonuses in proportion to the extent that the productivity of the team to which he belongs exceeds a standard level. Standards are more easily developed and used because they do not have to be as precise as those for individual incentives. Generally, more complex tasks, which require cooperative effort to complete, are covered, but it still is necessary to measure the unit of production. This system tends to be used in such departments as laboratory, radiology, dietary, laundry, and messenger service.

Splitting the reward among the team members leads to cooperation rather than competition. However, there may be unwillingness to assist other teams and resentment if it is believed that employees on another team can earn bonuses more easily.

Large Group Incentives

Under a large group plan the individual's incentive payment is related to an improvement in the productivity of a department or of the hospital as a whole. There is less conflict, and maintenance costs are lower than in individual and team plans. However, there are several possible drawbacks: Large group incentive plans must be modified as patient mix changes; the relationship between individual effort and group productivity is not as direct as in individual plans, and savings made on a single innovation can be paid for repeatedly.

Profit-Sharing Plan. Even though it is a nonprofit institution, a hospital may be able to use a variation of a profit-sharing program. If costs for a department, such as the pharmacy, remain the

*The discussion of employee incentive programs is based on Gustafson, D., Doyle, J., and May, J.J. *Employee Incentive System for Hospitals*. Washington, D.C.: U.S. Department of Health, Education, and Welfare, Health Services and Mental Health Administration, Community Health Service. DHEW Publication No. HSM72-6705.

same while income increases or if costs are lowered while income remains the same, the difference between costs and income can be regarded as "profit." This money can then be divided, on a percentage basis, among employees, hospital, and consumers.

Cost of installing this program is low, and the organization is committed only to payments based on actual "profit" made. Employees try to save materials and supplies, accept changes more readily, and cooperate toward a common goal.

However, factors over which employees have no control, such as a rise in cost of materials or increases in wage costs, may affect profits. Since profit-sharing payments are usually made quarterly, or at even less frequent intervals, the relationship between effort and bonus seems low to the employee. Employees may begin to question expenses for such profit-reducing expenses as nursing schools.

Labor-Savings (Scanlon) Plan. Psychological as well as monetary incentives are built into the Scanlon Plan. Employee-management committees review employees' suggestions for more effective operations and are authorized to implement those requiring little investment of money. Suggestions requiring a larger investment are referred to a screening committee, whose members are top-level management and elected employee representatives. A mediator may join this committee to help work out any conflicts that arise.

Employee bonuses are based on the reduction in the percentage of the total product revenue involved in paying labor costs. Employees receive the money saved when this percentage is reduced. Under the Scanlon Plan there is cooperation and communication between labor and management; employees more readily accept change. However, the ratio must be adjusted for changes in material and supply cost, and employees have no incentive to reduce supply costs.

Cost-Savings Sharing Plan. Because standards for a cost-savings sharing plan are based on material and labor costs for a given patient mix, they must be modified periodically to account for inflation and changes in patient mix. Such standards are especially appropriate for a hospital because they are based on costs and include an incentive to cut supply as well as labor costs.

In this plan employees are protected from financial fluctuations that are beyond their control. How-

ever, there may be a decrease in savings with the addition of more fringe benefits. The plan may require payments to employees when profits are low.

Value-Added Plan. For this program, payment is based on revenue minus material cost (the value added by the hospital to the service provided) divided by labor cost. Employees are motivated to reduce both labor and supply costs. The plan automatically adjusts to changes in material prices, price structure, and automation. However, the percentage payoff from labor savings is greater than from an equal reduction in material savings.

NON-MONETARY INCENTIVES

An employee expects to earn enough from his job to pay for his basic needs. Unless he does, it will be difficult to motivate him by any means. Once his basic needs are satisfied, he will then look to his job for satisfaction of his social and psychological needs. He wants to belong, to be accepted, to find friends among his fellow workers. Even more important, he needs a certain amount of autonomy, confidence in himself as a worker, status, self-esteem, a sense of achievement, recognition, and appreciation. He needs to keep learning and to keep growing intellectually.

Management should try to find ways of creating conditions that will enable employees to achieve these needs. If management is willing to listen, workers can suggest many ways of changing job situations to bring more satisfaction to themselves and to increase job effectiveness. Communications need to be two-way: from the top to the bottom so that all employees are aware of and are encouraged to work toward the organization's objectives, from the bottom to the top so that employees can make suggestions and have them considered seriously. The management-employee committees that are part of the Scanlon Plan can be particularly helpful in ensuring such communication.

Job enrichment is another way of making work more meaningful. A well-organized effort at the supervisory level can result in most jobs' becoming more interesting, more important, and more satisfying.

Although non-monetary incentive programs have not yet been applied to any extent in hospitals, such programs in industry have had positive effects on employee productivity. The most effective programs combine monetary and non-monetary incentives.

A DESCRIPTION OF INCENTIVE PROGRAMS IN HOSPITALS

Although incentive programs have primarily been used in private industry, some programs have been tried in the hospital industry. Individual hospitals have initiated wage-incentive programs for their own employees; third-party payers have planned incentive programs for groups of hospitals.

As this section is not an exhaustive discussion of all hospital-based incentive programs, there may be other programs which use a different approach or which are more or less successful than those briefly described here. Moreover, it should be noted that the information concerning these programs has been obtained from journal or other articles, not from firsthand observation.

EMPLOYEE WAGE-INCENTIVE PROGRAMS

Manatee Memorial Hospital, a 435-bed facility in Bradenton, Fla., in 1969 implemented a team incentive system as a means of obtaining a return on its investment in rising labor costs.¹ Under this plan, entitled "Excellence in Service," the hospital distributed questionnaires to patients. Point values were assigned to the answers (check marks in boxes labelled "excellent," "good," "average," and "poor") to 43 questions. The questions covered a patient's general impression of the hospital, admitting office, accommodations, nursing staff, treatment by other hospital staff members, food, daily schedule, visiting hours and regulations, treatment of visitors, business office arrangements, and other services. There was space for suggestions and comments.

An overall rating was determined for each service. Every six months a five per cent salary increase was given to employees in departments that showed at least a 66 per cent improvement in services for patients in the categories evaluated. If a department had such a high rating that an improvement of 66 per cent was not possible, the department was given credit for improvement if the status quo was maintained.

Workers were given frequent reminders about the program, its aims and results, and whether the goal was being attained. A committee of 50 employees, representing every department and shift, held monthly meetings to compile survey results, an-

alyze them, and discuss changes necessary to provide better service for patients. This helped to foster employee involvement. Committee members believed that the program helped improve relationships among employees and stimulated employees to "try a little harder."

This program was unique in that standards were derived from patients' views of quality rather than from time and motion studies of employee activities. Because the objective was improved patient satisfaction, the risk of reducing the quality of patient care was small, but there was no assurance that costs would be reduced or controlled.

Montana Deaconess Hospital, a 205-bed facility in Great Falls, Mont., initiated a teamwork incentive plan in selected areas — surgical and pediatric nursing units, radiology, surgery, clinical laboratory, and laundry — in 1966.² Financial incentive awards were given to employees in direct *proportion* to productivity increases in their departments and as close as possible to the time the increase occurred.

The incentive program was believed to have provided a stimulus to teamwork and to departmental pride and to have given employees a clearer understanding of how their departments functioned. Cost consciousness was created in departments where savings were realized and then employees received bonuses.

Some problems were encountered. The use of past performance as a measure of productivity was not fair to departments that had performed well in the past. There was dissatisfaction among some employees in departments not covered by the program. Some internal competitiveness was created. The pediatrics nursing unit received high incentive payments by increasing occupancy through adult admissions to the pediatric unit. The surgical unit never was able to obtain an incentive award because it could not change the number of surgical procedures. Savings in the radiology department came from reduction of fees and not from increased productivity.³

¹ Pozega, G. Hospital's Teamwork Incentive Plan Called "Excellence in Service": Manatee Memorial Hospital, Bradenton, Fla. *Hospital Topics* 49:37-38 January 1971.

² Bailey, G. Hospital Pays Employees Who Improve Their Productivity. *Modern Hospital* 111:109 September 1968.

³ Innovations in Hospital Management: A Summary of 10 Case Studies. *Hospitals, J.A.H.A.* 43:73-92 June 16, 1969.

Baptist Hospital, a 325-bed voluntary hospital in Pensacola, Fla., began its productivity incentive program in 1965.⁴ Employees were made aware of the need to conserve supplies, to use unit cost to control expenses, and to maintain department productivity when a worker was absent. Group pressure helped improve the work of poor performers and decrease absenteeism.

Reportedly, the program resulted in a decrease in manhours and contributed to an increase in productivity and containment of costs. In 1968 productivity in the radiology, pulmonary service, medical record, and housekeeping areas exceeded maximum levels, even though salaries were higher than in comparable Florida hospitals. Savings in supplies varied from 5 to 30 per cent, and, coupled with increases in productivity, resulted in incentive payments averaging \$18.17 per employee per month in 1968.

It was reported that quality of care was enhanced as a result of the program. But, although medical staff members were not acquainted with the details of the program, some were opposed to all programs they considered bureaucratic. The governing body gave complete backing to the administration, and most employees were in favor of the program because of the sound orientation they had received and the regularity of the incentive payments.

At *East End Memorial Hospital*, a 200-bed facility in Birmingham, Ala., a plan instituted in 1968 provided for payments to nurses and employees as manhours per patient day declined and a unit of the month award to the nursing unit providing the best quality of care.⁵ The program covered only nursing service, food service, housekeeping, laundry, and operating room.

Productivity was measured as an improvement over past performance, not over a pretested engineering standard. Therefore, services that had been less efficient in the past made the greatest immediate improvement. Containment of costs in two units — laundry and pediatrics — and some other economies resulted from the incentive program, but at the time the program was reported there had been no significant cost reduction. The program was most effective when it was first begun, as evidenced by declines in absenteeism and staff turnover.

INSTITUTIONAL INCENTIVE PROGRAMS

Third-party payers have sponsored experiments with institutional incentive programs for groups of hospitals. The programs discussed in this section took one of three approaches: industrial engineering, prospective rate setting and target budgets, or global performance strategy.

Industrial Engineering Programs

In such programs industrial engineers carefully examine the details of the work done in various hospital departments and offer specific recommendations for improvement. Time and money must be spent on the programs, but implementing the recommendations can result in savings over a period of years. Most such programs have covered only the hospital's "hotel" functions, not departments controlled by physician decision-making. The industrial engineering approach is limited to operating costs and does not attempt analysis of decisions on program or expansion or reduction of facilities.

In 1968 *Blue Cross of Western Pennsylvania* placed full-time industrial engineers in each of three urban hospitals to work out cost reduction projects acceptable to both Blue Cross and the hospitals.⁶ The demonstration was supported by the National Center for Health Services Research and Development. For one year Blue Cross paid the salaries of the industrial engineers and part of the salary of one of each hospital's top management staff to cover the time he would have to devote to the experiment. Blue Cross agreed that, if the industrial engineer's recommendations were implemented and resulted in savings during the year following completion of the study, the hospital would receive an incentive bonus.

Departmental costs were evaluated in each hospital to identify areas with cost-saving potentials. Four types of savings were considered when the incentive payment was computed: direct reduction in amount of materials and supplies used; direct reduction in labor required; increased output per unit of labor, and reduction in overtime. One-time savings, changes in cost resulting from reduction in productivity, and cost changes not accompanied by modifications in methods or practices were not considered. Recommendations to reduce the number of workers in a department were carried out only through natural attrition.

⁴ Ibid., p. 85.

⁵ Ibid., pp. 86-88.

⁶ Bauer, K. *Containing Costs of Health Services Through Incentive Reimbursement*. Boston: Harvard Center for Community Health and Medical Care. December 1973, pp. 9-20.

Hardwick and Wolfe evaluated the program.⁷ Some of their conclusions were:

1. Because only the Blue Cross portion of total patient days in the hospitals was included in the incentive formula, the incentive payments were too small to be a significant motivator.
2. Blue Cross paid the incentive award only after all savings had been verified; the late payment did not serve as a positive reinforcement.
3. For the hospital, Blue Cross' payment of the salary of a full-time industrial engineer was a larger dollar incentive than the incentive payment itself. In the year following the demonstration project one hospital employed an industrial engineer, a second reactivated its industrial engineering department, and the third was reported to be considering employing an industrial engineer.
4. Because hospital employees had no knowledge of the incentive payment and did not benefit directly from it, they had no motivation to contain or reduce costs.

Although the results of the experiment were positive in the three participating hospitals, Blue Cross of Pennsylvania concluded that it would not be possible to hire or train or to afford the salaries of the 15 or 20 industrial engineers who would be needed to serve all of its participating hospitals.

In 1968 *Maryland Blue Cross* and the *Social Security Administration* began a program whose goal was to contain or to moderate rising hospital costs by promoting more efficient hospital management.⁸ An independent, nonprofit, cost-finding organization, Hospital Cost Analysis Service, Inc. (HCAS), administered the program, which covered 38 Maryland hospitals.

HCAS made special studies of hospital staffing, purchasing practices, and facility utilization. It organized educational activities for engineers, housekeepers, and laundry managers designed to help them make their departments more efficient. Through industrial engineering techniques, HCAS determined the reasonableness of costs in individual hospitals and then recommended specific

types of changes to bring down costs that were out of line.

If the hospital accepted the suggested changes but did not make them within an agreed-upon period of time, HCAS advised Blue Cross, Medicare, and Medicaid to make appropriate adjustments in their rates of reimbursement. (An appeals mechanism was set up for hospitals dissatisfied with HCAS recommendations.) The reduction in reimbursement was based on HCAS's determination of the amount of money that the department could have saved by carrying out the study recommendations. Thus the incentive of the program was negative, not positive, and no financial rewards were offered to hospitals that performed better than the norm or that immediately implemented suggested changes.

An HCAS statement issued in February 1971 reported that, since the program had begun in 1968, more than \$2.4 million dollars in actual and projected savings had been recorded in operating costs of a number of participating hospitals; approximately \$420,000 had been spent to achieve those savings.

Prospective Rate Setting and Target Budgets

The argument for prospective rate setting is that it provides a motivation for reducing or at least containing costs. The administrator knows that his next year's revenue will be limited to a certain amount. He is impelled to take whatever actions are necessary to prevent costs from exceeding revenue. If he does not, the hospital will suffer, but, if costs are less than the rate set, the hospital will have a surplus. This system places the burden for extra costs resulting from poor management or unnecessary services and facilities directly on the hospital. Also the hospital administrator can justify cost-control activities to his medical staff and can obtain the power he needs from his board of trustees.

However, finding a rate that will not underwrite waste and inefficiency but will enable the hospital to meet its financial requirements is not simple, as various experiments with prospective rate setting have shown.

Blue Cross of Western Pennsylvania in 1969 initiated a pilot study to determine whether individually negotiated and approved budgets could be used as the basis for hospital reimbursement.⁹ A

⁷ Hardwick, C.P. and Wolfe, H. Evaluation of an Incentive Reimbursement Experiment. *Medical Care* 10:109-117 March-April 1972.

⁸ Bauer, p. cit., pp. 34-53.

⁹ Ibid., pp. 77-81.

small rural hospital agreed to go through, with Blue Cross, all the steps of negotiating a target budget. The study was intended solely to test techniques. The hospital was not obligated to implement any recommendations made, and in fact did not do so, and the Blue Cross reimbursement to the hospital for the year of the study was not affected.

Blue Cross staff members compared the hospital's overall costs and those of specific departments for the previous year with costs in a control group of four similar hospitals. Unless special circumstances justified higher costs in the experimental hospital, a budget adjustment was made. The hospital's forecasted expenses were reviewed and any that seemed to be out of line were reviewed and discussed with department heads.

Blue Cross staff and the hospital administrator and controller discussed final recommendations for adjustments and agreed on a target budget.

The hospital exceeded the target budget by about \$78,000. Budget adjustments recommended but not made accounted for \$36,000 of this amount. If the target budget had governed the Blue Cross rate of reimbursement that year, the hospital would have been reimbursed about \$17,000 less than its actual expenses for Blue Cross inpatients.

This pilot program showed both the advantages and the disadvantages of the negotiated target budget approach. The administrative efficiency and uniqueness of the individual hospital are considered, and budget increases are suggested by hospital personnel who are thoroughly familiar with the considerations involved. Also, staff members learn about cost control and budgeting through their participation in the program.

However, once the third party accepts a budget, it tacitly accepts the hospital's entire program, which makes it difficult in future years to suggest changes. The administrative effort required for this program is expensive in both time and money. Specific guidelines on which the reviewing staff could base its judgments and standard accounting procedures and definitions would make such a program more feasible.

In another experiment, in 1971, *Blue Cross of Western Pennsylvania* tested a formula approach combined with a budget review.¹⁰ Six weeks before the start of the fiscal year each participating hospital reported to Blue Cross, on standard forms,

its costs during the latest eight months of the current fiscal year, estimated figures for the remaining four months, and a board-approved budget for the new fiscal year. Blue Cross staff members analyzed the budget, using several percentile tolerances as guidelines, and then recommended certain budget decreases. A formula was applied to determine the allowable operating and non-operating per diem costs for the hospital for the coming year. Controls were measurements against similar hospitals and against selected U.S. Government economic indices. Rates were fixed for the fiscal year; any surplus or loss was shared fifty-fifty by the Blue Cross and the hospital.

Increases in costs in the hospitals included in the experimental group during the first year of the study were approximately 60 per cent of the increases in a control group of similar hospitals. In 1973 hospitals were given the option of deciding to accept the prospective rate setting mechanism as part of their contract with Blue Cross of Western Pennsylvania. All the hospitals that had participated in the experiment chose to continue in the program.

The plan gave hospitals an incentive to live within a rate established in an impartial, equitable manner. Although the prospective rates were based, in part, on the hospital's current expenditures, the formula maximums discouraged hospitals from manipulating short-term expenditures to obtain future gains.

However, a great deal of hospital and Blue Cross time was required for the program. For a large-scale program simplified reporting forms would have to be developed. Case-mix fluctuations might cause problems if the program were applied to larger, more sophisticated institutions than the community hospitals covered in the experiment.

Rhode Island Blue Cross initiated a negotiated prospective rate program covering its 16 member hospitals in 1971.¹¹ Any hospital that could operate below its annual negotiated budget could keep 50 per cent of the savings; hospitals exceeding their budget had to absorb the difference.

Individual hospitals submitted their budgets to a committee of the state hospital association for peer review. The budget then went to Blue Cross for review and for negotiation of a total operating expense for the coming fiscal year. Blue Cross officials estimated that approximately a hundred different meetings were required to reach final

¹⁰ Ibid., pp. 82-96.

¹¹ Ibid., pp. 97-113.

agreement on prospective budgets for the 16 hospitals.

No formal evaluation scheme was built into the program. However, it can be pointed out that the cost increase for the year was the lowest Rhode Island hospitals had experienced since 1965. Budget reductions of almost \$7 million were made. Although the program required a great deal of hospital and Blue Cross staff time, hospital administrators and trustees gained a better understanding of their institutions' costs, which was of real value. Through the peer review mechanism, administrators, for the first time, had an opportunity to learn what other hospitals were doing and planning.

Because of the federal wage-price freeze, the reimbursement program in Rhode Island was discontinued in 1972.

An incentive reimbursement experiment funded by the *Social Security Administration* and *Connecticut Blue Cross* began in 1969.¹² Eighteen of the state's short-term general hospitals participated in the program; the other 17 served as a control group for assessing cost savings.

A central staff consisted of a project director, three project coordinators, and a secretary. Each project coordinator was responsible for one of the three size groups into which the 18 hospitals were divided. He served as a consultant to the hospitals as they prepared their budgets.

In each size group there were two subdivisions. Each of the smaller groups had its own Budget Approval Board, composed of three administrators, three controllers, two directors of nursing, and one hospital trustee. A board reviewed only the budgets of hospitals in the other division of its size group; it was responsible for all judgments concerning budgets, rewards, and penalties.

A coordinating council was given responsibility for maintaining uniformity of decisions and actions of the boards and maintaining compliance with the guidelines of the experiment. Council members were eight consumers, three representatives from non-participating hospitals, and two representatives of the agencies funding the program.

Budget targets and reviews for particular departments were chosen as the most effective way to control expenditures. It was considered desirable

for department heads to be involved in the financial aspects of their hospitals and to be given authority to work out departmental goals and expenditures. When actual costs were less than targeted budgets for the departments, the hospitals were allowed to keep any savings; none of the savings were retained by Blue Cross or Medicare. Blue Cross, but not the Social Security Administration, assessed a penalty for costs in excess of approved rates.

The results of the program varied according to the size of the hospitals. The small institutions became more involved and more enthusiastic as the program developed, the reactions of the medium-sized institutions were variable, and the six large hospitals dropped out of the program at the end of the second year because of pressures from the national wage-price freeze.

Because most members of the Budget Approval Boards did not have the training to analyze the budget data submitted to them, they sometimes merely approved the hospital budget requests instead of trying to suggest adjustments that could reduce costs.

The net incentive paid to small and medium-sized hospitals during the three-year experiment was about 2 per cent of their combined adjusted target budgets. General service departments were more successful in earning incentives than were physician-controlled departments. Because department heads did not benefit directly from incentive payments, they were not significantly motivated to control costs.

Associated Hospital Service (AHS) of New York, the Blue Cross plan serving nine million people in the New York metropolitan area, began an experiment with prospective rate setting for its 185 member hospitals in January 1970.¹³

The New York Cost Control Act of 1969 had directed the Commissioner of Health to assure that payments for hospital services by government agencies and Blue Cross were "reasonably related to the costs of efficient production of such service." The state insurance department had ruled that Blue Cross reimbursement methods could only be prospective. The health department required that Blue Cross compute rates of payment to hospitals through a reimbursement formula "not inconsistent with the principles and regulations promulgated by the Commissioner of Health." The

¹² Ibid., pp. 151-174.

¹³ Ibid., pp. 114-150.

AHS program was designed to meet all these requirements.

After the 1969 law was enacted, the state health department and AHS unsuccessfully attempted to work out, with the hospitals, cooperation and agreement on the law's basic principles. The hospitals were so resistant that there was almost no hospital input when the state health department's Principles of Reimbursement, the Commissioner of Health's regulations, and the Blue Cross reimbursement methods were written.

Several types of incentives were built into the AHS program. Prospective rates were set; AHS reimbursed an individual hospital only after determining the weighted average cost of similar hospitals and using the group averages to establish cost ceilings. If a hospital had kept its costs below the established rate, it could keep the difference; if costs were over the established rate, the hospital had to sustain the loss.

Cost resulting from underutilization of facilities or services were disallowed. Hospitals could earn productivity bonuses; there were rewards and penalties to encourage conformity with average lengths of stay. Depreciation arrangements were designed to discourage capital expenditures for unneeded services.

The hospitals maintained that the prospective formula was inequitable because it penalized hospitals that had lower costs than most of the other hospitals in their group, because the formula's reliance on base-year data ignored changes in hospital occupancy during the intermediate years, and because the formula penalized hospitals for reducing length of inpatient stay when this resulted in lower occupancy.

Despite the hospitals' resistance, the percentage increase in average per diem inpatient costs in the New York area declined dramatically between 1968 and 1973. However, it was not possible to document the amount of savings that could be attributed solely to the AHS program. Hospital costs were greatly affected by New York State's decision to set prospective rates for reimbursing hospitals for the care of Medicaid patients and by the national wage-price freeze in 1971.

Global Performance Strategy

Still another type of incentive program is the global performance strategy. In this the third-party payer sets global objectives — to contain rates of

cost increase and to decrease average lengths of patient stay — but leaves each hospital on its own to modify its customary performance or not as it chooses. A hospital receives a bonus if its overall record is better in the incentive year than it was in the base year, according to some predetermined criteria for measuring performance, or if its performance is better than the average performance in a group of hospitals.

This program's advantages are its relative simplicity and its minimal cost. Hospitals like it because the sponsors are not involved in the operational and planning aspects of the hospitals; unfortunately, this plan does not seem to have much effect on actual management decisions.

In 1968 *Blue Cross of Virginia* initiated a program designed to encourage its 59 member hospitals to contain their per diem costs and reduce their lengths of patient stay.¹⁴ The program was repeated in 1970 and then terminated because Blue Cross did not believe that the program incentives actually motivated hospitals to control costs.

A hospital received a bonus if its rate of increase in per diem costs was less than the average rate of increase for all member hospitals in the incentive year. Also a hospital received a bonus if it reduced its average length of stay below that of the previous year or if its average length of stay was at or below the average for all participating hospitals and, in addition, less than its own average for the previous year.

There were a number of objections to the program. The hospitals that won incentives were those whose performance had been far below average. No attempt was made to take into account differences in size, location, types of patients, and scope and intensity of services. Although the average length of stay dropped in the Virginia hospitals during the years of experiment, a similar drop was observed in hospitals throughout the country.

Blue Cross of Northeast Ohio began, in 1968, a program of rewarding any hospital whose costs increased at a rate less than the weighted average cost increase of the 60 hospitals in the plan.¹⁵ The Blue Cross contracts with the hospitals already contained a number of requirements intended to assure effective management and control.

¹⁴ Ibid., pp. 55-63

¹⁵ Ibid., pp. 64-72.

Under the global performance incentive program, if a hospital's rate of increase in per diem costs was less than the average or if its absolute cost declined, it received an incentive payment amounting to 20 per cent of the favorable trend in that institution. These were no penalties in the program.

For fiscal year 1968, 34 hospitals received incentive payments amounting to \$326,687; the largest payment to one hospital was \$47,000. Blue Cross reported that, if costs in the 34 hospitals had increased as much as the average, the cost to Blue Cross subscribers would have been \$1.5 million.

ORGANIZATIONAL CHANGE: A Theoretical Framework for Incentive Program Development and Implementation

An organization, such as the hospital, is a dynamic system. Therefore, in order to survive and grow it must constantly change by adapting to new conditions. These conditions can stem from external factors such as governmental legislation that results in a new function or method of operation (for example, the federal government's Economic Stabilization Program imposed change through revenue and expense limitations). They also can stem from internal factors such as turnover in top management or a shift in management philosophy which results in a new style of leadership and organizational philosophy on the part of key personnel.¹ Whatever the source stimulating change, every institution must contend with both driving and restraining forces which influence the configuration of the resultant change.² Driving forces are those forces affecting a situation that are "pushing" in a particular direction and so tend to initiate change and keep it going. Examples of driving forces are: pressure from a supervisor, new government regulations, incentive earnings, and competition. Restraining forces are those which act to restrain or decrease the effect of the driving forces, including apathy, hostility, and poor maintenance of equipment.

Equilibrium in an organization exists when the sum of the driving forces equals the sum of the restraining forces. Change can be accomplished by raising or lowering the equilibrium through altering the relationship between the driving and restraining forces. Desired organizational change occurs when either driving forces are increased without a concomitant increase in restraining forces or restraining forces are decreased while driving forces remain constant. Change which occurs as a result of a decrease in restraining forces tends to have better long-term effects than change which results from an increase in driving forces.

Whether the stimulus for organizational change is externally or internally generated, the process of altering the relationship between restraining and driving forces should include the varying levels of

planning if the organization is to modify to the desired equilibrium level. Ideally, change is a deliberate, planned program which is designed to change the organization by altering the existing patterns of behavior of the individuals in the organization and the organization itself.

Behavior modification is the strategy that is generally employed to change individual and organizational behavior.³ It should be noted that, since the organization is a composite of individuals, the organization itself can be changed only by changing the behavior of the individuals who comprise the organization.

The basic tenet of the strategy of behavior modification is that behavior can be altered by positive or negative reinforcement of an act. A neutral reaction has no effect on behavior and serves to perpetuate the status quo. Positive reinforcement is anything that is rewarding to the individual whose behavior is being reinforced. Positive reinforcement acts as a motivating force by rewarding individuals who exhibit the desired behavior change and eventually results in an increase of the rewarded behavior. The reward for desired behavior changes may be monetary, or it may take the form of praise or purchase of desired new equipment. Negative reinforcement in the form of fines, penalties, or other punishments is used to suppress undesirable behavior. Negative reinforcement does not have as lasting an effect on behavior as positive reinforcement since the undesirable behavior often returns when the sanctions are removed or are not enforced.

Positive and negative reinforcement are both examples of driving forces which can change the organization by pushing it in a new direction through the modification and reshaping of individual behavior. However, it should be noted that the use of negative reinforcement as a driving force can have the side effect of increasing the restraining forces by generating hostility to the sanctions employed as negative reinforcers.

The shift in the relationship of driving and restraining forces to accomplish change can take place at four levels, which differ in terms of the time and

¹ Reddin, W.J. Managing Organizational Change. *Hospital Administration* 15:79-86 Winter 1970.

² Hersey, P. and Blanchard, K. *Management of Organizational Behavior*. Englewood Cliffs, N.J.: Prentice Hall, Inc., 1972, pp. 100-101.

³ Hersey and Blanchard, op. cit., pp. 155-158.

effort required to accomplish the desired change.⁴

Changes in *knowledge* tend to be the easiest and the fastest to accomplish since all one has to do to increase the driving forces is give the employee a new procedural manual or to have someone he respects give him new information. Utilization of this new information is then positively reinforced to accomplish the desired change in knowledge.

Attitudinal change is slightly more difficult since attitude structures are emotionally charged in a positive or a negative way. Thus, when one seeks to change attitudes, the driving forces must take account of the emotional factor.

Changes in *individual behavior* are more time consuming and difficult to implement than knowledge or attitudinal changes because the desired behavior may often subside in the long run if positive or negative reinforcement ceases or becomes routine in nature.

The fourth level, that of *organizational performance change*, is the most difficult to accomplish because at this level the driving forces must overcome the strong restraining forces of customs, mores, and traditions. The organization as a group composed of individuals tends to be a self-reinforcing unit. At this level of change, one must accomplish both individual behavior modification and modification of group norms.

Accomplishing change at the organization performance level frequently transcends all of the lower order change levels and is, thus, the most difficult to effect. For descriptive purposes, two dichotomous cycles of change can be identified — (1) the participative change cycle in which the employees at all levels of the organization are active participants in the design and implementation of the change program and (2) the coerced change cycle in which change is implemented by executive mandate. While in practice these cycles represent the extremes on a continuum of approaches to achieving change and are rarely used in their pure form, they are useful models to describe the kinds of approaches used in implementing change and the possible problems and consequences that can accrue.

Selection of one or the other of the extreme approaches or some more moderate approach to changing organizational performance is in a large measure a function of one's perception of the worker and the motivational aspects which deter-

mine his performance in the organization. Dichotomous views of man's nature and motivational structure have been described as Theory X-Theory Y.^{5, 6}

Theory X assumes that most people prefer to be directed, are not interested in assuming responsibility, and want safety above all. Accompanying this philosophy is the belief that people are motivated by money, fringe benefits, and the threat of punishment. Managers who accept Theory X assumptions attempt to structure, control, and supervise their employees since they believe control is clearly appropriate for dealing with unreliable, irresponsible, and immature employees.

It has been concluded that management by direction and control may not be effective when an attempt is made to motivate people whose social, esteem, and self-actualization needs are becoming predominant because their physiological and safety needs are reasonably satisfied. Accordingly, an alternate (to Theory X) theory of human behavior called Theory Y was developed. This theory assumes that people are not by nature lazy and unreliable and postulates that man can be basically self-directed and creative at work if properly motivated. The properly motivated worker can achieve his own goals just by directing his own efforts toward accomplishing organizational goals.

Managers who accept the Theory Y image of human nature attempt to help their employees mature by exposing them to progressively less external control and allowing them to assume more and more self-control. According to Theory Y, if the worker is allowed this control over his own job, he will consider work as a source of personal challenge and satisfaction instead of as a necessary evil.⁷

The participative change cycle reflects the Theory Y assumptions about human nature and motivation. The individuals to be changed are viewed as mature individuals who can be motivated to direct their efforts toward accomplishing the goals of organizational change. In the participative change process, knowledge change is accomplished by making new information or methods available to

⁵ McGregor, D. *The Human Side of Enterprise*. New York: McGraw-Hill Book Co., 1960.

⁶ Maslow, A. *Motivation and Personality*. New York: Harper and Row, Publishers, 1964.

⁷ Hersey and Blanchard, op. cit., pp. 46-48.

⁴ Ibid., pp. 2-3 and 158-159.

the individual or the group. Attitudinal change is then accomplished by the direct participation of the individual or the group in helping to select or formalize the goals or new methods for obtaining the goals.

To change individual and group behavior, formal and informal group leaders are identified, and attempts are made to gain their acceptance and modify their behavior in order to translate the group's commitment into actual behavior. The group will usually follow the leader's behavior, and the desired result of organizational change will be effected. Positive reinforcement is used to sustain desirable behavior. The participative change cycle is slow and evolutionary since it involves the participation of employees at all levels of the organization.

The coerced change cycle, on the other hand, reflects some of the Theory X assumptions about human nature and motivation. This cycle is speedy and best adapted to less mature individuals who, in accord with Theory X, are not willing to make changes unless they are told to do so. The coerced change cycle is initiated by someone who has positional power and can thus use rewards, punishment, and sanction to impose change on the total organization. Therefore, this type of change relies on negative reinforcement to eliminate undesirable behavior.

Coerced change in the form of an edict or command affects group behavior initially and then individual behavior. The new modes of behavior create new knowledge, which tends to develop predispositions of the group and individuals toward or against the change. If the predisposition is toward the change and develops into commitment to change, the coerced change cycle begins to approximate the participative change cycle, in which attitudes are changed and individual and group behavior in the new direction is reinforced.

However, if the predisposition is against the change, the attitudinal change level will not be

achieved, and individual and group behavior will not be reinforced. In this case, the coerced change cycle results in animosity and hostility on the part of the employees and the change can be maintained only as long as the implementer has the positional power to enforce the change. Professional and semi-professional employees are generally resistant to change by edict so that dysfunctional consequences result if coerced change is attempted. Moreover, unless the employees' attitude is changed to a commitment to the change, the coerced change cycle may be ineffective in the long run.⁸

When one is determining whether the participative change cycle or the coerced change cycle is to be utilized to accomplish organizational change, it is important to recognize that different situations require different techniques. In some situations, time limitations require that the less time-consuming coerced change cycle be utilized. Before implementing either of the two types of change cycle, one should take into account a wide range of environmental variables, including job demands; the personality and expectations of the leaders, followers, associations, and organization; the time limitations on adopting the change, and the social and financial structure of the organization and the surrounding and service community. The employees' perception of appropriate behavior for their role or position in the organization and their perception of the role of others in the organization are important considerations when an attempt is made to alter their pattern of behavior. The personality and expectations of the organization itself are determined by its history and tradition as well as by the organizational goals and objectives which reflect the style and expectations of the current top management. In essence, each organization exists in a unique environment, and a change program suitable for one environment may be totally inappropriate for another.⁹

⁸ Ibid., pp. 159-161.

⁹ Ibid., pp. 109-133.



THE HOSPITAL ORGANIZATION

The realization that each organization exists in a unique environment and that a change program suitable for one environment may be totally inappropriate for another environment is of particular importance when change in the hospital is being considered. The hospital has several characteristics which significantly differentiate it from product-producing, profit-maximizing corporate institutions and, to a lesser extent, from other for-profit or nonprofit service institutions.

In Georgopoulos and Mann's discussion of the unique characteristics and organizational problems of the community general hospital,¹ the hospital's principal product is identified as the medical, surgical, and nursing services provided to patients — a product which cannot easily be measured. Like all large-scale institutions, the hospital is concerned with organizational stability and growth, financial solvency, plant maintenance, and other supportive activities. In the hospital, however, all these are subsidiary to the chief objective: the provision of adequate care and treatment for patients.

Most of the persons working in the hospital agree about the importance of this objective and find real satisfaction in contributing toward it. Therefore, there is much less conflict between the employees' personal needs and goals and the objective of the organization than there is in most other types of organizations.

Cooperation of many persons with specialized education or training and narrowly defined responsibilities is essential for proper functioning of the hospital. Doctors need the support of both professional and nonprofessional hospital employees in order to give patients the care they need. Although the hospital must have a system of internal coordination, it must at the same time rely on the skills, motivations, and behavior of individuals to assure the necessary cooperation. The work of a hospital is not mechanized, uniform, or standardized, nor can it be planned in advance. The persons performing the work must make adjustments to meet each situation as it arises. Because so many of its employees are professionals, who hold themselves to certain standards of behavior, the hospital can attain a level of coordination and integration that no rigid, bureaucratic, inflexible organization could hope for.

Nevertheless, the hospital does have some authoritarian characteristics. As professionals can accept, there are rules that must be adhered to in order to protect the health and the life of the patient, particularly in emergency situations. These rules help to make clear who has authority and responsibility and to assure that each person works smoothly as part of a disciplined team. When a patient's life is at stake, there can be little tolerance for ambiguity or error.

Also, for the hospital to be able to provide the necessary care for patients at all times, it must be able to count on its employees. To assure that employees' behavior is predictable, the hospital relies to some extent on such controls as rigid rules and procedures, directive supervision, and rigorous discipline.

Lines of authority in the hospital are not single but multiple.² The governing body, through the authority granted it by the state in the hospital's charter of incorporation, has the ultimate overall responsibility for the institution. The governing body delegates the day-to-day management to the hospital administrator, who, in turn, delegates authority to the department heads. The administrator has the bureaucratic authority to control the hospital organization through rules, regulations, and established procedures.

Medical staff members are outside the administrative line of authority. Doctors are not hospital employees; they have high status and prestige; they have almost complete authority in medical matters. They exercise influence throughout the hospital, and they have medical authority over the nursing staff and over patients.

The lack of a single line of authority makes formal organization difficult. In some instances it is not clear where authority and responsibility lie. For instance, nurses must take orders from their supervisors and from doctors — and the orders are not always consistent. The balance of power in the hospital is delicate and precarious.

Increasing emphasis on the need for the hospital to operate efficiently has supplied some impetus

¹ Georgopoulos, B. and Mann, F. *The Community General Hospital*. New York: MacMillan Publishing Co., 1962.

² Smith, H.L. Two Lines of Authority: The Hospital's Dilemma. In *Patients, Physicians, and Illness*, E.G. Jaco, ed. New York: The Free Press, 1966.

toward change. Medical and nursing services, facilities, equipment, supplies, and medicines are expensive, but they are essential for the best patient care. Therefore, such costs can be justified — even when the best care is not the most economical care. But the public is intolerant of costs resulting from inefficient operations, poor administration, duplication of services, waste, and negligence.

Several of the characteristics of the hospital organization present problems when change is attempted. Employees who derive satisfaction from their work because they help to provide care for patients may resist change because they fear it would result in a decline in the quality of patient care. Sometimes they fail to perceive that a proposed change could result in both continued quality of care and lower costs.

Owing to the multiple lines of authority, the administrator has the least leverage when trying to gain medical staff support for a desired change. In situations that directly or indirectly affect physicians, the administrator must employ a tactful approach to gain their support and cooperation. His task is especially delicate when the change involves levels of resource allocations — particularly if the new level is less than the medical staff perceives as the necessary level. The administrator may then be criticized for losing sight of the goals of the organization because he is too committed to economy and efficiency. The doctors may present their case in terms of the change's threatening the well-being of patients. However, their opposition may also stem from a fear that the change will threaten their medical autonomy and discretion.

The administrator may also encounter resistance to change from the nurses and other occupational groups. Because the nurses are the largest labor component in the hospital, their support is important in any hospital-wide change program. If the nurses resist proposed changes, especially in nursing practices and policies, they may be able to obtain medical staff support for their position.

The administrator is likely to encounter the least resistance to proposed changes in the non-direct patient care sectors of the hospital, such as the business office and the dietary and laundry departments. These departments fall under the direct hierarchical control of the administrator. While they may object to the nature of a proposed change, there is no question as to the administrator's authority and power to make the change.

Even so, because of the great interdependence of

hospital departments, change in one area may affect other areas, and the administrator is well advised to try to obtain the cooperation of all the employees affected.

In addition to the complex social relationships of the hospital, the administrator desiring to make changes is confronted with complex technological considerations. In the hospital a variety of techniques are drawn upon in order to achieve a change in a specific object, that is, a patient, but the selection, combination, and order of application of the techniques is determined by feedback from the patient's responses. The state of each patient determines the services that will be provided to him. Thus, on any given day, no one can anticipate exactly what services the hospital must provide until patients present themselves for treatment. While experience can provide estimates of possible patient requirements, ample supplies and staff must be on hand to accommodate unanticipated demands.

In summary, the hospital's unique characteristics make the application of theories of organizational change most difficult.

1. Since the goal of the hospital is medical treatment of the patient, the product is not easily defined or measured, and a unit of output is not easily counted.
2. The nature of the production process, unlike that in a factory with an assembly line, is not well defined. It is difficult to separate the various activities into measurable units.
3. Because of the multiple lines of authority, it is frequently necessary for the administrator to obtain the cooperation of the medical staff in order to bring about change.
4. The quality or service orientation of any hospital promotes a philosophy of viewing efficiency as the alternative to quality. Personal relations are often stressed, and resistance to efficiency may center on the loss of personal interaction, which is considered a decline in quality.
5. Among nursing and some other occupational groups, job satisfaction may be related as much to fulfillment of altruistic and other needs as to financial compensation. Therefore, the notion of financial rewards for productivity may be less well received in hospitals than it is in other industries.

6. Hospital staff members have traditionally been highly receptive to implementing new procedures, equipment, and technological advances which have been shown to improve the quality of patient care. But the staff of a

hospital is similar to the staff of any institution in that there is a basic inertia, as the old style of behavior is both comfortable and familiar.



SUGGESTIONS FOR DESIGNING AND IMPLEMENTING INCENTIVE PROGRAMS IN HOSPITALS

No incentive program is perfect for every situation. In an individual hospital a program should be planned to take into account the unique characteristics of that institution. In institutional incentive programs covering groups of hospitals, as far as possible like should be compared to like — small hospitals to small hospitals, teaching institutions to teaching institutions, urban hospitals to urban hospitals. Nevertheless, it is possible to offer some general suggestions that anyone planning an incentive program should consider.*

An incentive program will not increase the effectiveness of a poorly run hospital. Such a program can be successful only if it is implemented in a hospital that is well run, with an experienced set of managers, mutual trust between managers and workers, and employees who are supportive of the organization and enjoy their work.

The governing body and administrator of the hospital must be convinced of the value of the program and willing to make a long-term commitment to it. Money must be spent to obtain results from the incentive program, though an effective one will result in long-term reduction of costs. Throughout the life of the program the administrator and other top management persons must spend time on it. An incentive program left to run itself will soon end in disaster.

The administrator should be an educated consumer concerning incentive plans and should understand their strengths and weaknesses and how they work. He should be aware of what can be accomplished and what problems may be encountered. It is an asset to the program if the administrator assumes a major role in the implementation because his enthusiasm and support, or lack of it, can determine the fate of the program. He needs to give the incentive scheme the appropriate priority rather than a secondary claim on time and resources.

If the administrator has a positive attitude toward the incentive program, his top managers are likely to adopt a positive attitude as well. To keep

managers oriented and committed to the program, it may be necessary to have an executive incentive program in which payment is based on the organization's success in containing or reducing costs. The larger the potential reward to the managers, the greater the motivation to reduce costs. However, care must be taken to ensure that increased cost consciousness does not compromise quality or create resentment among employees and middle-line managers.

The departmental supervisors are a vital link in the implementation and maintenance of the incentive system because they play the key role in explaining the program to employees and in maintaining employee interest in the program. They must be willing to devote time to the incentive program that they would normally expend on other activities.

Top management staff should make a realistic decision on how much supervisory time should be devoted to the incentive system. Supervisors need to agree that the program is a high-priority item, so that there is equal support of the incentive scheme in all departments. Because the support of the supervisors is essential to success, the orientation for supervisors should precede that for employees. The supervisors should feel that the incentive program is being operated through them and with them, not around them.

The supervisors' receptivity to an incentive system for cost control will be enhanced to the extent that they have already been sensitized to the financial aspects of hospital operations and understand the necessity for cost control.

A carefully planned, thorough, and continuous program of informing employees about the incentive plan and of enlisting their cooperation is essential. It may be worthwhile to explain the program to each worker individually. Management should invite suggestions from employees on ways to cut costs and involve employees in the setting of standards. The persons who do the work are in the best position to suggest better ways of doing it. If the program is imposed from above with the workers not clearly informed about the plan and what is expected of them, they cannot cooperate

*Various investigators have identified criteria for successful program design and implementation. Sources consulted for this section are among those listed in the Selected Bibliography.

fully. Furthermore, they will be suspicious of both management and the program.

Employees will respond to an incentive program that asks them to change their behavior to benefit the hospital only if their loyalty to the hospital is not exceeded by some other loyalty, for instance to the standards of their own profession. They may feel that an incentive program will lower professional standards and be offended by the idea of accepting financial payments for performing their professional duties more effectively. Of course, a worthwhile program will not lower standards, but a real effort has to be made to convince professional persons of this fact. Also, they may prefer that money saved not be given to individuals but be used to purchase equipment that will add to the effectiveness of their departments.

No incentive program in a hospital can be successful without the support of the medical staff. A special plan should be made to ensure that the physicians understand the program and believe it is worthwhile. If possible, they should receive some reward for their support of and involvement in the incentive program. In the case of an institutional program, this reward may take the form of the purchase of desired new equipment or the addition of new services or facilities.

An effective incentive program is fair to all parties concerned — the hospital, the employees, and, in an institutional program, the third-party payer. At the same time the program should be simple and understandable. Obviously neither fairness nor simplicity is easy to attain, nor are the two qualities always compatible.

Sound standards must be determined, established, and maintained despite the difficulty of measuring output in a hospital. The standards should not be set on the basis of historical performance — which generally leads to rewards only for individuals, departments, or institutions that have performed poorly in the past — but on measurements, which are as precise as possible, of what is required under normal circumstances to perform a given task.

Many incentive schemes require that an industrial engineer set the standards for the measurement of productivity. It is most important that the industrial engineer be able to work effectively with the hospital administrator and departments. In some departments, such as nursing, it has been possible to predict the success of an industrial engineering program on the basis of the understanding and commitment of the administration and nursing staff to the goals of the program.

If a consultant, in addition to an industrial engineer, is brought in, he can usually be most effective at the design stage, when elements of solutions to problems are being identified. Research has shown that fresh views of problem situations are needed before an effective change program can take place. Because the outside consultant is not personally involved in the hospital, he can make objective evaluations. The consultant's insights can be valuable if the hospital administration is willing to accept his advice as constructive criticism.

However, a consultant should not make final decisions concerning the design of an incentive system for a hospital because he is not familiar with the strengths and weaknesses of the given hospital and so cannot incorporate them into the design. The best use of a consultant is to bring him in for program development discussions and then have a top person in the hospital take over responsibility for implementation of the program. This person should have the authority to release other personnel as necessary to work on program implementation.

Of course, industrial engineers and consultants may work with third-party payers planning an institutional incentive program, as well as with a hospital instituting an internal program.

Once a program has been worked out, it should be put into effect for, as everyone involved is aware, a testing period. During this test period standards and procedures should be evaluated and changed as necessary. Of course, there should also be provision for evaluation and adjustment as situations change throughout the life of the program.

Nothing in the program should be favorable to achieving a reduction in cost by a decrease in the quality of care. The prestige of a hospital does not stem from its ability to operate with the highest economy but from its reputation as a source of effective medical care derived from a good medical staff and up-to-date facilities.

Incentive payments should be substantial enough to seem worthwhile to those receiving the payments, should be made closely enough in time to the desired behavior change to link behavior and bonus closely in the minds of the recipients, and should be paid separately from wages or, in an institutional program, from third-party reimbursements. The most effective program combines non-monetary incentives — which increase the worker's satisfaction with his job — and monetary incentives.

The success of an incentive program is determined not by short-run payoffs but by its effectiveness in changing the behavior of management personnel

and employees so that work is performed more efficiently and therefore, over the long run, costs are reduced.

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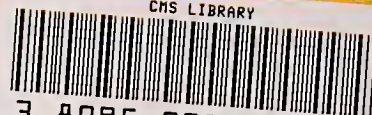
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